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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/911,528	07/24/2001	Jaime A. Ampuero Auza	KP2310USNA	4837

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EXAMINER	
TORRES VELAZQUEZ, NORCA LIZ	
ART UNIT	**PAPER NUMBER**
1771	

DATE MAILED: 12/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/911,528	AMPUERO AUZA ET AL.	
	Examiner	Art Unit	
	Norca L. Torres-Velazquez	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 September 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) *8,9,14 and 15* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7 and 10-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a)☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Arguments

1. Applicant's election with traverse of group I, claims 1-7 and 10-13 in Paper filed September 04, 2003 is acknowledged. The traversal is on the ground(s) that it is inappropriate to restrict group I from group II because group II cannot be adequately examined without searching the same classes and subclasses as those searched in group I. Further, that neither group I and group II can be completely searched without searching the appropriate classes and subclasses of group III.

This is not found persuasive because Applicant has failed to state what is the necessary search for the other groups which embrace the adequate search of group I.

The requirement is still deemed proper and is therefore made FINAL.

2. Applicant's arguments see page 6, of document filed September 04, 2003, with respect to claim 1 have been fully considered and are persuasive. The rejection of claim 1 under 35 U.S.C. 102(b) as being anticipated by HAGEN et al. (US 5,688,370) has been withdrawn.

3. Applicant's arguments filed 09/04/03 with regards to Hendren et al. (US 4,886,578) have been fully considered but they are not persuasive.

a. Applicants argue that Hendren et al.'s invention produces samples with an average basis weight of 2165 g/m^2, which is much heavier than in the present invention. Further, that Hendren's invention is a rigid board, not a flexible paper like sheet like.

It is noted that the basis weight of 2165 g/m^2 corresponds to a sample made by pressing 11 plies of waterleaf. (Refer to Column 3, lines 22-32) Therefore, each layer of waterleaf has a basis weight of 196.8 g/m^2 and a thickness of 8.9 mils [which is equal to

0.226 mm]. These values clearly anticipate the presently claimed values. The reference teaches pressing several layers of waterleaf [paper like sheet like] material in order to produce a rigid board. Therefore, the rejections over HENDREN et al. are maintained.

With regards to the "resin impregnatable" recitation in the preamble, it is noted that it does not limit further the nonwoven material and the Examiner does not give patentable weight to this limitation. Further, the fact that Hendren et al. produces an "oil impregnatable" material does not preclude the material from being impregnated with a resin. Hendren et al.'s invention provides the presently claimed structure, and the intended use of the material [i.e. to be impregnated with oil or resin] is not relevant to the structure.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 4, 10 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by HENDREN et al. (US 4,886,578)

HENDREN et al. discloses a process for making a high heat resistant oil-impregnatable insulating board that has 35-60 wt.% aromatic polyamide fibrous materials (that equates to the wettable structural organic floc of the present invention), preferably Poly (m-phenylene isophthalamide) (MPD-I) [which equates to the term meta-aramid], and 40-65 wt.% polytetrafluoroethylene (PTFE), fibrous material (that equates to the fluoropolymer floc of the

present invention). Preferably 0-20wt% are MPD-I floc and at least 35 wt.% are MPD-I fibrids. (Column 1, lines 51-61) The reference further teaches that fibrous materials include floc, pulp and fibrids. (Column 2, line 6) The reference further teaches that the sheet is produced by a dispersion of the fibrous material, a method similar to a papermaking method. (Column 3, lines 12-28) With regards to claim 4, it is noted that polytetrafluoroethylene (PTFE) is a perfluorinated straight-chain high polymer. (Encyclopedia of Polymer Science and Technology) It is noted that the reference teaches in their example a material with a basis weight of 2165 g/m^2 that corresponds to a sample made by pressing 11 plies of waterleaf. (Refer to Column 3, lines 22-32) Therefore, each layer of waterleaf has a basis weight of 196.8 g/m^2 and a thickness of 8.9 mils [which is equal to 0.226 mm]. These values clearly anticipate the presently claimed values of basis weight and thickness. The reference teaches pressing several layers of waterleaf [paper like sheet like], material in order to produce a rigid board.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 2-3, 5-7, 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over HENDREN et al. as applied to claims 1, 10 and 12 above, and further in view of GROSS (US 3,756,908).

The HENDREN et al. reference fails to teach the use of a binder.

GROSS discloses nonwoven, flexible sheet structures of commingled fibrids of a nonfusible aromatic polyamide and short aromatic polyamide fibers. (Abstract) The reference teaches that the mixture contains about 15 to 90 percent by weight of fibrids of a nonfusible aromatic polyamide and about 10 to 85 percent by weight of short fibers a of a nonfusible aromatic polyamide having an initial modulus less than 80 gm/denier. (Column 1, lines 63-68) The low modulus aromatic polyamide fibers used in the GROSS reference are short fibers commonly referred to as "floc". (Column 3, lines 22-24) The reference further teaches that binder, e.g. acrylic polymers or epoxy resins, and the like, may also be added to the paper, either to the stock slurries, prior to sheet formation, or by conventional size-press addition to the formed sheet. (Column 4, lines 55-58) The reference further teaches the use of poly (meta-phenylene isophthalamide). (Refer to Claim 5)

With regards to the percent by weight of the binder in the nonwoven material being up to about 30%, it is noted that the ranges of the fluoropolymer floc and the wettable structural floc taught by HENDREN et al. allow for the inclusion of a binder to up to about 30% by weight in view of the GROSS reference.

With regards to the binder comprising at least one aramid fibrid, it is noted that the HENDREN et al. teaches the use of aramid floc and aramid fibrid, and that the method of forming the nonwoven as disclosed by GROSS allows the addition of a binder prior to sheet formation. Since both references teach a dispersion method of formation of the nonwoven, the components claimed on claims 5-7 would be expected to act as a binder. The Examiner concludes that the combination of the references reads on claims 5-7.

Since GROSS and HENDREN et al. from the same field of endeavor, the purpose disclosed by GROSS would have been recognized in the pertinent art of HENDREN et al.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the nonwoven and provide it with a binder with the motivation of producing a paper (nonwoven) with good elongation-to-break along with a low degree of brittleness, i.e., a good flex life as disclosed by GROSS. (Column 1, lines 57-60)

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norca L. Torres-Velazquez whose telephone number is 703-306-5714. The examiner can normally be reached on Monday-Thursday 8:00-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

NLT

December 4, 2003

ELIZABETH M. COLE
PRIMARY EXAMINER